

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

TITLE V RENEWAL (FINAL PERMIT) NO. V-05-051

SONOCO PHOENIX

HENDERSON, KY

ARPIL 4, 2006

SOURCE I.D. #:	021-101-00106
SOURCE A.I. #:	1835
ACTIVITY I.D. #:	APE20040001

SOURCE DESCRIPTION:

Sonoco Phoenix is a light duty stamping operation that provides the canning industry with full panel easy opening aluminum ends (EZO) and some steel ends. The can ends are stamped from a press and a bead of compound is applied to the outer periphery of the can end. These ends are then shipped to other plants to be attached to a can body. The bead of compound serves as a bonding agent for the can body. Sonoco produces several types of can ends which include blanks (basic can ends), and ring pull ends. Sonoco receives steel and aluminum coils from which the can ends are stamped. The various compounds, nozzle cleaning mists and tool lubricants used to manufacture can ends contain organic compounds. Therefore, the primary pollutants emitted at this source are VOC and organic HAPs. The materials applied at this facility presently include:

- Darex 9179 E, a solvent based compound applied as a bead to the outer periphery of the can end.
- Darex 9385 E, a solvent based compound applied as a bead to the outer periphery of the can end.
- Darex 6305 E, a water based compound applied as a bead to the outer periphery of the can end.
- Darex 9307 E, a water based compound applied as a bead to the outer periphery of the can end.
- Darex 85 E, a nozzle cleaning mist solution used to clean the nozzles which apply the bead of the compound to the can end
- AMCO 4874, a tooling lubricant
- Gil Lube Clear Plus, a tooling lubricant
- Hot Melt Wax, a wax applied to ring pull ends. This provides safety protection to the lid once the ring pull has been removed.
- B35 A2-1 Wax, a wax applied to steel scroll sheets.

The uncontrolled potential to emit (as defined in 401 KAR 52:001, Section 1 (56)) of any single HAP (n-hexane) is equal to or greater than ten (10) tons per year. Sonoco Phoenix has accepted federally enforceable limitations on the potential to emit any individual HAP and the combination of HAPs of less than 9.0 tpy and 22.5 tpy, respectively. Therefore, this source is not a major source of HAP emissions, as such is defined at 40 CFR 63.2. Compliance with these limitations on HAP emissions shall make the requirements of 40 CFR 63, Subpart KKKK (*National Emission Standards for Hazardous Air Pollutants for Surface Coating of Metal Cans*) not applicable to the source. The uncontrolled potential to emit (as defined in 401 KAR 52:001,

Section 1 (56)) of VOC is greater than one hundred (250) tons per year. Sonoco Phoenix has accepted a federally enforceable Synthetic Minor permit limitation on the potential to emit of VOC. The total amount of material applied at all emission points specifically listed in Section B of the permit shall be limited such that the potential to emit of VOC is limited to less than 225 tons per year. Compliance with this requirement shall limit source-wide VOC emissions, including VOC emissions from insignificant activities, to less than 250 tons per year. Therefore, the requirements of 401 KAR 51:017, PSD, are not applicable to this source. However, this voluntary limit on VOC emissions still exceeds 100 tons per year. Therefore, the source is a major source and is subject to the provisions of 401 KAR 52:020.

This permit is the renewed issuance of the source's plant-wide Title V operating permit.

PUBLIC AND U.S. EPA REVIEW:

Public notice was placed in the Henderson Gleaner on October 5, 2005. The comment period ended on November 7, 2005. There were no comments from the public. The proposed permit was sent to U.S. EPA review and the comment period has ended on January 26, 2006. No comments were received from U.S. EPA.

COMMENTS:

- 1) Emission Units: This group includes all emission points emitting VOC, HAPs, paraffin, and ammonia excluding insignificant activities. The list of EP=s includes the following:

- 01 (01) - Curing oven
- 02 (02) - Curing oven
- 03 (03) - Folded ring pull end press
- 04 (04) - Folded ring pull end press
- 05 (05) - Top end strip press
- 06 (06) - Bottom end strip press
- 08 (08) - Blank end press
- 09 (09) - Blank end press
- 11 (11) - Blank end press
- 12 (12) - Curing oven
- 13 (13) - Ring pull end press
- 14 (14) - Scroll sheer waxers
- 15 (15) - Compound transfer station
- 16 (16) - Mobile compound transfer station
- 18 (18) - Mixing drum
- 19 (19) - Tab press
- 20 (20) - Ring pull end press
- 21 (21) - Ring pull end press
- 26 (26) - Blank end press
- 27 (27) - Curing oven
- 28 (28) - Ring pull end press
- 29 (29) - Ring pull end press
- 32 (32) - Ring pull end press
- 33 (33) - End press
- 34 (34) - Ultra Seal Blanks
- 35 (35) - Ultra Seal Blanks

- a) Emission factors

The potential emissions are calculated assuming material balance (assuming 100 % volatilization of solvent compounds). These are derived by back calculating the amount of emissions per end produced. The methodology to

calculate potential emissions is consistent with that approved by DAQ during initial title V review.

b) Applicable Regulations

401 KAR 63:021, Existing Sources emitting toxic air pollutants
Self-imposed limitations to preclude PSD, 401 KAR 51:017

c) Non-Applicable Regulations

40 CFR PART 64, Compliance Assurance Monitoring

401 KAR 59:225, New miscellaneous metal parts and products surface coating operations
401 KAR 61:125, Existing can surface coating operations

401 KAR 61:132, Existing miscellaneous metal parts and products surface coating operations

40 CFR 63, Subpart KKKK, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Metal Cans

i. The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, apply to a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, at a major source that is required to obtain a Part 70 or 71 permit if the PSEU meets the following criteria:

- A) the unit is subject to an emission limitation or standard for an applicable regulated air pollutant,
- B) the unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard, and
- C) the unit has a potential to emit (PTE) before controls equal to or greater than 100 percent of the amount (tons per year) of the pollutant required for a source to classified as a Part 70 major source.

Each emission point listed above as a pollutant-specific emissions unit (PSEU) has uncontrolled PTE at less than 100 percent of the applicable major Part 70 threshold for VOC and HAPs. Therefore, pursuant to 40 CFR 64.2 (a), the requirements of this rule do not apply to the emission points listed above.

ii. The requirements of 401 KAR 59:225, New miscellaneous metal parts and products surface coating operations, do not apply to those emission points that were constructed on and after the June 24, 1992 administrative regulation effective date. Henderson County has been designated as an attainment county for ozone in 40 KAR 51:010 and the permittee has accepted federally enforceable limits on VOC emissions such that this is not a major source. Additionally, the compounds containing VOC that are used in the above listed emission points are only applied either as beads around the rim of the steel and aluminum lids or as lubricants in the manufacture of the parts. Since the compounds used do not coat a significant area of the product, nor do they function as a decorative or protective coating, the Division has determined that these compounds do not qualify as coatings under 401 KAR 59:225.

iii. The requirements of 401 KAR 61:125, Existing can surface coating

operations, do not apply to those emission points which were constructed on or after June 29, 1979. Since all the emission points at the source are constructed after the classification date of June 29, 1979, the requirements of this rule do not apply to the emission points listed above.

- iv. The requirements of 401 KAR 61:132, Existing miscellaneous metal parts and products surface coating operations, do not apply to those emission points which were constructed on or after February 4, 1981. Since all the emission points at the source are constructed after the classification date of February 4, 1981, the requirements of this rule do not apply to the emission points listed above.
- v. Pursuant to 40 CFR 63.3481 (b), the requirements of 40 CFR 63, Subpart KKKK are applicable to each surface coating facility that uses 5,700 liters (1,500 gallons (gal)) per year, or more, of coatings to coat metal cans and ends and is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants. This source is not a major source of HAPs because the permittee has accepted federally enforceable limits of single HAP emissions to less than ten (10) tons per year and the combined HAP emissions to less than twenty five (25) tons per year. These limits were established by the Department prior to the compliance date of Subpart KKKK and, therefore, the requirements of this rule do not apply to the source.

d) Control Device: None

2) Insignificant Activities

a) Applicable Regulations

- i. Compound transfer station #15 for Darex 9179 E [401 KAR 63:020]
- ii. Compound transfer station #16 for Darex 9385 E [401 KAR 63:020]
- iii. Safety-Kleen 30 gallon parts washer [401 KAR 63:020]
- iv. Safety Kleen 80 gallon parts washer [401 KAR 63:020]
- v. Pneumatic conveying system and scrap aluminum baler [401 KAR 63:020]
- vi. Two (2) natural gas fired Safety Shield ovens, each with a heat input rating of 1.2 MMBtu/hour [401 KAR 59:010]

b) Non Applicable Regulations

- i. Pursuant to 40 CFR 63.460 (a), the requirements of 40 CFR 63, Subpart T, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning*, apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5

percent by weight, as a cleaning and/or drying agent. The 30 gallon and 80 gallon parts washers, as insignificant activities, do not use any of the solvents mentioned above in a total concentration greater than five (5) percent. Therefore, the parts washers are not subject to the requirements of 40 CFR 63, Subpart T.

c) Control Device: None

3) The following changes have been made at the source during the prior five (5) year period and are incorporated into this Title V renewal permit:

- a) To give flexibility to the source, the size and type of materials being coated are removed from the initial Title V permit (Revision 1, issued on April 30, 1999)
- b) Revised the description for EP # 32 and removed the references to Safety Kleen parts washers from list of points. (Revision 2, issued on June 7, 2000)
- c) Substituted compound Darex 9372 with Darex 7704E at emission points # 3, 16 and 32. (Division treated this substitution as an Administrative Amendment on September 22, 2000)
- d) Substituted solution of Anchor 20-1 with Darex 85E at emission points # 3, 4, 5, 6, 8, 9, 10, 11, 26, 32, 33. (Division treated this substitution as an Administrative Amendment on October 30, 2000)
- e) Replaced compound Darex 7704 E with Darex 9358E. 9358 E has less n-hexane and VOC than Darex 7704E. (Division treated this substitution as an Administrative Amendment on November 7, 2001)
- f) Source name changed from Sonoco Products Company to Sonoco Phoenix, pursuant to the application submitted to KDAQ by the permittee on May 20, 2003. (Division treated this change as an Administrative Amendment on May 23, 2003)
- g) Installation of two (2) ultra seal blanks (minor revision, installed in June 2003).

SOURCE STATUS:

- (a) This existing source is not a major stationary source for PSD review because this type of operation is not one of the twenty-eight (28) listed source categories under 401 KAR 51:017 and the potential to emit of VOC has been limited to less than 250 tons per year.
- (b) Henderson County is designated as attainment for the 8-hour ozone standard and VOC and NOx, as regulated ozone precursor pollutants, are each emitted at a rate less than 250 tons per year. No other criteria pollutant is emitted at a rate of 250 tons per year or more. Therefore, the existing source is not a major stationary source under prevention of significant deterioration (PSD), 401 KAR 51:017.

EMISSION CAPS:

If the source were to emit VOCs at its maximum potential emissions rate, 401 KAR 51:017, Prevention of significant deterioration to air quality (PSD), would apply. Therefore, to preclude the applicability of this regulation, the permittee has opted for a total emissions limit of 225 TPY of VOC from the emission points listed above, which would keep the total source emissions below the PSD threshold of 250 TPY, including emissions from insignificant activities. Compliance with this plant-wide cap on VOC emissions, represented as a twelve month rolling average, shall be demonstrated through a monthly calculation of total VOC emissions from the applicable emission points, as well as related recordkeeping and reporting requirements. The

compliance calculation conservatively assumes that all VOC contained in the materials used at these emission points are emitted to the atmosphere. Thus, the VOC emissions from the listed plant emission points are calculated as the summation of the total monthly usage of each VOC-containing material and its corresponding VOC content.

To preclude the applicability of 40 CFR 63, Subpart KKKK, the permittee has opted for a plant-wide single HAP and combined HAP limit of 9 TPY and 22.5 TPY, respectively, from the emission points listed above. Compliance with this plant-wide cap on single HAP and combined HAP emissions, represented as a twelve month rolling average, shall be demonstrated through a monthly calculation of the total emissions of each single HAP and the total combined HAP emissions from the emission points, as well as related recordkeeping and reporting requirements. The compliance calculation conservatively assumes that all HAPs contained in the solvents used at these emission points are emitted to the atmosphere. Thus, the single HAP emissions from the listed plant emission points are calculated as the summation of the total monthly usage of each single HAP-containing compound and its corresponding HAP content. The combined HAP emissions from the source will be calculated as the summation of all single HAP emissions.

Plant-wide emission limitations:

The plant-wide single HAP and combined HAP limit is to preclude the requirements of 40 CFR 63, Subpart KKKK not applicable. The n-hexane, toluene, and vinyl acetate plant-wide short term limits from Title V permit No. V-95-024, Revision 2 are 45.35 pounds per hour, 10.23 pounds per hour and 4.27 pounds per hour, respectively. These short term limits are incorporated in the title V permit renewal, however, the source has to still comply with annual limit plant-wide single HAP and combined HAP limit of 9 tons per year and 22.5 tons per year, respectively, to render the requirements of 40 CFR 63, Subpart KKKK not applicable.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.